



STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES  
WILDLIFE  
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FISHER SURVEY - 2003<sup>[1]</sup>

by


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Introduction

Extensive logging in the 1800's, subsequent fires, and heavy trapping pressure through the 1920's led to the extirpation of the fisher (*Martes pennanti*) from its former range in the Upper Peninsula (U.P.). Fisher were first reintroduced in the 1960's on the U.P.'s Ottawa National Forest. By 1989, they had become sufficiently abundant in all or parts of Baraga, Gogebic, Houghton, Iron, Marquette and Ontonagon counties (Unit A) to allow a limited harvest by trapping. In 1993, the bag limit was increased from 1 to 3 per trapper. In 1994, additional areas in Alger, Delta, Dickinson, Houghton, Keweenaw, Marquette and Menominee counties (Unit B) were opened to fisher trapping. Trappers were limited to 1 fisher from Unit B as part of their bag limit. Regulations remained the same in 1995. In 1996, the remainder of the Upper Peninsula, with the exception of Drummond Island, was added to Unit B. In 2003 the season was increased from 11 to 15 days.

Since the first fisher trapping season, trappers have been required to submit to the Michigan Department of Natural Resources (DNR) the skulls of fisher for examination and pelts for sealing. In 2003, 397 of the 443 (89.6%) legally trapped and registered fisher were examined at the Rose Lake Wildlife Disease Laboratory. Previous surveys consisted of collections of vehicle killed and accidentally trapped fisher (Cooley et al. 1982, 1986, 1987, 1988) and legally trapped fisher (Cooley et al. 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 2000, 2001a, 2001b, 2002 and 2003).

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## Materials & Methods

Skinned fisher carcasses and/or heads were submitted by trappers and field personnel to the Rose Lake Wildlife Disease Laboratory.

The sex of each fisher was determined from the size of the lower canine tooth (Parsons et al. 1978).

Age was estimated by radiographing a lower canine tooth to determine the width of the pulp cavity (Kuehn and Berg 1981), and by counting cementum annuli in longitudinal thin sections of the tooth root (Strickland et al. 1982).

## Results and Discussion

There was a registered harvest of 443 fisher. Of the 397 fisher submitted for examination, 246 (62.0%) were males and 151 (38.0%) were females.

Juvenile fisher were easily identified by the large size of the pulp cavity in radiographs of their canine teeth and by the lack of cementum annuli. Of the legally trapped fisher submitted for examination, 65.0% (258 of 397) were 1.5 years old or younger (Table 1). Last year's fisher harvest consisted of 71.1% (204 of 287) yearlings and juveniles.

## Management Implications

Ideally, harvest levels should be determined from estimates of population size. Since it is neither practical nor possible to accurately count most species of wildlife, managers must often use indices of population status. One such indicator for fisher is the ratio of juveniles to females 2.5 years old or older in the harvest (Douglas and Strickland 1987). To help calibrate this ratio to Michigan conditions, harvest results will continue to be compared with other indices of relative abundance such as track counts.

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Table 1. Sex and age distribution of fisher harvest, December 1 - 15, 2003

AGE	MALES	FEMALES	TOTAL	%
0.5	116	62	178	44.8
1.5	48	32	80	20.2
2.5	29	18	47	11.8
3.5	26	21	47	11.8
4.5	14	11	25	6.3
5.5	5	1	6	1.5
6.5	4	3	7	1.8
7.5	2	2	4	1.0
8.5	1	1	2	0.5
9.5	1		1	0.3
TOTAL	246	151	397	100